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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,351	08/08/2001	Philip Cunetto	P19897	2860

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GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER	
ROBERTS, BRIAN S	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/923,351	CUNETTO ET AL.	
	Examiner	Art Unit	
	Brian Roberts	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2/17/2006.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-18 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 08 August 2001 is/are: a)☐ accepted or b)☒ objected t o by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- Applicant's Amendment filed 2/17/2006 is acknowledged.
- Claims 1-18 remain pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claim 11

Claim 11 line 6 recites the limitation "the policy analysis". There is insufficient antecedent basis for this limitation in the claim.

- In reference to claims 12-18

Claims 12-18 are rejected as being dependent on claim 11.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8, 10-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sreedharan et al. (US 6473430) in view of Smyk (US 6289001) and further in view of Hemmady (US 6633569).

- In reference to claims 1 and 7

Sreedharan et al teaches in Figure 1 a system comprising of:

- An ATM switch (111-113) connected to a frame relay user (123-124) where the frame relay user (123-124) attempts to communicate with another frame relay (123-124) user via an SVC connection. The signaling and switching functionality are resident in the ATM switch (111-113). (abstract, column 2 lines 25-50)
- A frame relay proxy controller (230) connected to the ATM switch (111-113) that is responsible for setting up each individual SVC connection, completing the data transfer via the SVC connection, and then breaking down the SVC connection. (column 5, lines 64-67)
- A signaling channel routed through the ATM switch (111-113) and terminating at the frame users (123-124), ATM users (121-122), and the NMS (140) where the ATM switch (111-113) forwarded signaling to the NMS (140) over the signaling channel (101).
- An ATM switch (111-113) containing a controller (230) for establishing a virtual circuit. (Figure 2)

Sreedharan et al. does not teach a proxy signal channel between the ATM switch and the controller used to set up an SVC connection in response to a request received over the signaling channel.

Smyk teaches a system where a plurality of proxy agents communicate with the ATM switch over the proxy channel in order to establish a SVC connection in response to a received request. (column 2, lines 16-22; abstract). Smyk further teaches a method where a plurality of proxy agents is connected to an ATM switch. Upon failure of a proxy agent, a proxy agent selector selects a new proxy agent. (abstract, Figure 2) (claim 7 – A second controller that becomes connected with the ATM switch when the controller becomes unavailable)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include a proxy agent (frame relay proxy controller) connected to the switching interface (210) (ATM switch) over a proxy channel as taught by Smyk in order for the proxy agent (frame relay controller) to remain separate from the switching interface (210) (ATM switch) and allow for the system to continue to function upon failure of the assigned proxy agent (frame relay proxy controller) since the plurality of proxy agents (frame relay controllers) can be used as backups for each other.

Sreedharan et al. and Smyk do not teach the controller performing policy management for the ATM switch.

In Figure 1 and 4, Hemmady teaches a system where an ATM controller performs policy management via communicating with a database (420) storing quality of

service data and congestion level data. The ATM controller utilizes the database to select a best route for a SVC connection and to determine whether to grant or a reject a SVC connection request. (abstract, column 6 lines 29-34)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by the combination of Sreedharan et al. and Smyk to include the controller performing policy management via communicating with database storing quality of service data and congestion level data as taught by Hemmady because it allows the controller to utilize the database to select a best route for a SVC connection and to determine whether to grant a SVC connection request.

In reference to claim 2 and 15, as best understood

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims. Sreedharan et al. further teaches the establishment of PVC connections through the ATM backbone network (101). (column 4, lines 51-67)

- In reference to claim 3

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims.

Sreedharan et al. and Smyk do not teach the controller performing policy management for the ATM switch via communicating with a policy database in response to an ATM SVC setup connection request.

In Figure 1 and 4, Hemmady teaches a system where an ATM controller performs policy management via communicating with a database storing quality of service data and congestion level data. The ATM controller utilizes the database to select a best route for a SVC connection and to determine whether to grant a SVC connection request. (abstract, column 6 lines 29-34)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by the combination of Sreedharan et al. and Smyk to include the controller performing policy management via communicating with database storing quality of service data and congestion level data as taught by Hemmady because it allows the controller to utilize the database to select a best route for a SVC connection and to determine whether to grant a SVC connection request.

- In reference to claims 4, 6, and 16, as best understood

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims. Sreedharan et al. further teaches the end system (121-124) further comprise ATM SVC signaling devices and SVC connection protocol compliant signaling.

- In reference to claims 5

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims.

Sreedharan et al. does not explicitly teach an end system utilizing UNI signaling device.

Smyk teaches a system where a SVC is established between two end users and where the ATM switch proxy agents are connected to the ATM switches. (column 1 lines 34-67; Figure 1) The signaling involves the ATM Forum's UNI proxy signaling standard. (column 1, lines 36-67)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include the end users utilizing UNI signaling as taught by Smyk because ATM UNI is a signaling standard utilized in call and connection control including call establishment, call clearing, status enquiry, and point-to-multipoint control.

- In reference to claim 8

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims. In Figures 1 and 2, Sreedharan et al. teaches a system where ATM switches (111-113) are connected to the frame relay proxy controller (230) within the ATM switches (111-113).

Sreedharan et al. does not teach a system where a plurality of switches are connected to a proxy control agent.

Smyk teaches a system where ATM switches are connected to the proxy control agent. (Figure 2)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include a proxy agent connected to the ATM switches as taught by Smyk because it allows the proxy agent to communicate with ATM switches and begin setup of a SVC within the ATM backbone network for data transfer between end users.

- In reference to claims 10 and 18, as best understood

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims. In Figure 1, Sreedharan et al. further teaches an ATM access concentrator (130) capable of receiving a plurality of input data streams comprising of frame relay data and ATM cells and converting them into an ATM cell output stream. (column 4 lines 38-50)

In reference to claims 11 and 12, as best understood

Sreedharan et al. teaches a system where an end user attempts to communicate with another end user via a SVC connection through an ATM switch network. The process inherently involves a setup request by the frame relay user before a virtual circuit is established to transfer data across the network. A NMS (140) establishes a PVC connection from the access concentrator (130) through ATM switch (111) to the frame relay proxy controller in ATM switch (113). The frame relay proxy controller (230) in the ATM switch (113) is responsible for providing the SVC signaling and switching for the connection after the PVC is established. (column 5 line 45 – column 6 line 15)

Sreedharan et al. does not teach a controller sending a proxy signal to an ATM switch in order to set up an SVC connection across the ATM network.

Smyk teaches a system where a proxy agent receives a setup request from an ATM switch and then sends a proxy signal to the switch. (Figure 1-2, column 2 lines 10-45)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include a proxy agent (frame relay proxy controller) connected to the switching interface (ATM switch) (210) and send a proxy signal via proxy channel as taught by Smyk in order for the proxy agent (frame relay proxy controller) to communicate with the switching interface (ATM switch) (210) and begin setup of a SVC within the ATM backbone network for data transfer between end users.

Sreedharan et al. and Smyk do not teach the controller performing policy management for the ATM switch.

In Figure 1, Hemmady teaches a system where an SCP (130) and NMS (135) (centralized policy management) perform policy management via maintaining a database (420) storing quality of service data and congestion level data. The SCP (130) and NMS (135) utilize the database to establish a best route for a SVC connection and to determine whether to grant or a reject a SVC connection request. (abstract, column 7 lines 33-39)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by the combination of Sreedharan et al.

and Smyk to include the SCP (130) and NMS (135) performing policy management via communicating with database storing quality of service data and congestion level data as taught by Hemmady because it allows the SCP (130) and NMS (135) to utilize the database to select a best route for a SVC connection and to determine whether to grant a SVC connection request.

- In reference to claim 13, as best understood

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims. In Figure 1-2, Sreedharan et al further a method of sending signals between ATM switches, controllers, and end users to establish a connection.

Sreedharan et al. does not teach a second proxy signal from a second ATM switch to a second controller and a second controller sending a second connection setup signal to a second end system through the second switch.

In Figure 1-2, Smyk teaches a system where a second proxy agent receives a proxy signal from a second ATM switch and then sends a proxy signal to the second switch to set-up the SVC. (column 2 lines 10-45)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by Sreedharan et al. to include a second proxy agent connected to a second ATM switch and send a second proxy signal via proxy channel as taught by Smyk in order for the second proxy agent to communicate

with the second ATM switch and begin setup of a SVC within the ATM backbone network for data transfer between end users.

- In reference to claim 14, as best understood

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims. Sreedharan et al. further a method of sending signals between ATM switches, controllers, and end users to establish a connection. (Figure 1-2)

Sreedharan does not teach explicitly teach a method of receiving by the second controller a first connection connect signal from the second end system that is routed through the second ATM switch; sending a third proxy signal from the second controller to the second ATM switch; sending a second connection connect signal from the second ATM switch to the first ATM switch; sending a fourth proxy signal from the first ATM switch to the first controller; and sending a third connection connect signal from the first controller to the first end system, the third connection connect signal being routed through the first ATM switch.

Smyk teaches a system in figure 2 where a first proxy agent and a second proxy agent communicate to switch 1 and switch 2 over a proxy channel. (Figure 1-2, column 2 lines 10-45, column 3 lines 4-66, column 4 lines 1-10)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system of establishing a SVC between end users as taught by Sreedharan et al. to include the proxy signaling between proxy agents 1 and 2 and

switches 1 and 2 as taught by Smyk in order for the second proxy agent to communicate with the second ATM switch and begin setup of a SVC within the ATM backbone network for data transfer between end users.

Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sreedharan et al. (US 6473430), in view of Smyk (US 6289001), in view of Hemmady (US 6633569)., as applied to the parent claims, and further in view of Acharya et al. (US 5903559)

- In reference to claims 9 and 17

The combination of Sreedharan et al., Smyk, and Hemmady teach a system that covers substantially all limitations of these claims.

The combination of Sreedharan et al., Smyk, and Hemmady do not teach a system that intercepts IP packets and retrieves IP signaling for processing by the controller to support Internet Protocol.

Acharya et al. teaches a method that runs IP directly on ATM hardware. IP modules are present at every switch in the ATM network. Packet routing is IP-style, hop-by-hop routing over a PVC network. A switch controller examines any IP and TCP header values and uses the values to route the IP packets. (column 4 lines 20-65)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system as taught by the combination of Sreedharan et al., Smyk, and Hemmady to include the system that intercepts IP packets and retrieves IP

signaling for processing by the controller to support Internet Protocol as taught by Acharya et al. because it allows the IP packets to be switched over an ATM network.

Response to Arguments

Applicant's arguments with respect to claim 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BSR
04/19/2006

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600